Utah Water Task Force

Secondary Water Metering

As specified in Utah Code 73-10-34, the Utah Water Task Force has added metering of secondary water to its list of topics to address. A subcommittee was assigned with identifying issues related to metering of secondary water in the state including cost, timing, the need for exemptions, resources to pay the cost of metering, and other relevant issues. The subcommittee largely consists of secondary water purveyors with practical operational experience and representing a customer base which is accustomed to low cost outdoor water service with few limitations on usage. Concerns remain with some of these purveyors that the costs of metering to their entity and therefore to their customers will be very unpopular and in some places impractical. Once introduced to the whole Task Force, proponents of secondary metering offered their perspectives. It is difficult to offer from these differing points of view any recommendations or conclusions. Alternatively, this document will attempt to articulate the different points of view.

Background

"Secondary" water means water provided to a home or business for outdoor use that isn't treated to drinking water standards. This water is typically used to water lawns, outdoor landscapes, and gardens. The concept of secondary water systems in municipal settings was introduced in Utah in the 1950s by the US Bureau of Reclamation as a way to meet these outdoor watering needs at reduced costs. At the time, the Bureau of

Reclamation found it less costly to put irrigation water into separate, piped secondary systems than to create a single, primary water treatment and distribution system where all water in that system could be used for all purposes.

Secondary systems made it possible for municipal water providers to build smaller water treatment plants, reduce energy and chemical treatment costs, and reduce drinking water infrastructure. While these benefits are substantial and should not be discounted, secondary systems without meters tend to have significantly higher per capita use, largely because the end users are not aware of how much water they are using, nor can a water provider price water delivery based on actual use. Secondary users lacking usage information cannot make fully informed decisions.

Through the installation of secondary water meters, and the subsequent educational opportunities made available, water providers throughout Utah have consistently demonstrated the ability to reduce secondary water usage significantly, with the resulting water savings ranging from 15-30%--even if users are still charged a flat fee regardless of volume used. This reduction in water use has allowed water providers to extend existing water supplies and delay costly new water development projects. If fully implemented across all secondary users, this effect could be far greater, as hundreds of thousands of homes along the Wasatch Front and elsewhere across the State remain unmetered. The Kem C. Gardner Policy Institute at the University of Utah predicts that Utah's population will increase from 3 million in 2015 to almost 6 million by 2065. With this amount of growth, it is essential that water is used efficiently and responsibly. Failing to do so imposes its own costs on the system, necessitating new water development projects that have high economic, environmental, and maintenance costs. Ultimately, it may limit growth in an arid state. Metering secondary water, on the other hand, represents a proven tool in the effort to avoid such costs, and one that relies principally on providing the public with information to make informed decisions on their own water conservation. In essence, good information encourages good decision-making.

Unmetered secondary systems also raise fundamental questions of fairness both between water users within a secondary system and between water users living in different systems. An imbalance may be created when one user uses significantly more water than another user. This imbalance means that the first user subsidizes the second's use—a concept fundamentally at odds with the way most people pay for utilities like drinking water, gas, and electricity, all of which are metered using systems that guarantee that the end user pays their fair share based on the volume used. The current system also raises questions of fairness between water users in different systems because many water users in Utah either (A) lack access to secondary water, meaning that they have to use treated culinary water for all indoor and outdoor uses, or (B) they have secondary meters and tiered pricing systems in place. In other words, they already pay for the cost to meter the water provided to them. Such users often have little sympathy for those who enjoy unlimited access to secondary water for a flat fee.

Despite the water savings and fairness benefits of secondary metering, significant barriers remain to full implementation. First and foremost, installing secondary meters in existing homes is costly, particularly where a meter must be installed in a more mature backyard, requiring the water provider to navigate around

trees, walls, fences, trampoline pits, and more. This means that the costs to install meters are not equal across water users. Second, as the costs to install and maintain secondary meters in a system can be substantial, even if those costs are financed it can result in significantly higher monthly or annual costs to end users, including those on fixed incomes. Third, until recently, the market offered few (if any) reliable meters, which must be able to accurately record water use even when the water quality is poor and contains dirt, sand, or other debris. Lastly, built out communities in low or no growth areas with favorable long-term contracts have little or no incentive to install meters, which represent significant costs to customers with no obvious or immediate benefit to those customers outside of informing them how much water they and their neighbors are using.

Utah legislators have struggled with the most effective way to implement secondary water metering throughout the State's secondary water systems. Most recently this discussion resulted in the passage of the 2019 Senate Bill 52 (Utah Code 73-10-34). This bill applies to "secondary water suppliers" -- entities that supply pressurized secondary water. These secondary water suppliers are typically irrigation companies and community water systems who provide pressurized secondary water to their customers/shareholders for lawn and garden (i.e., non-agriculture uses). A summary of the requirements of SB 52 are as follows:

1. Entities must install meters on all **NEW** connections designed after April 1, 2020.
2. Entities must, before December 31, 2019, submit to the Utah Division of Water Resources a plan for how metering of individual connections could be implemented for their system.
3. Entities must report annually their water use data to the Utah Division of Water Rights.
4. Funding is available to assist in financing the costs of installing meters.

The legislature recognized SB-52 as partial and temporary solution, which means that many of the difficult issues surrounding secondary metering remain unresolved. Beyond that, even the seemingly modest requirements of SB-52 raise legitimate questions and concerns about implementation. All of that suggests that a thorough vetting of the issues surrounding secondary water metering is necessary. To that end, the Secondary Water Metering Subcommittee of the Utah Water Task Force met multiple times and has identified the issues listed below as ones relevant to additional policymaking in this area.

Comments to the existing code

Subcommittee members raised questions about implementation of SB-52, as codified in Utah Code 73-10-34. Those comments include the following:

- The primary objectives of the legislation are unclear. It is water conservation, fairness, delaying water development, other considerations, or some combination of factors? (Knowing the key drivers helps those affected understand whether and to what extent the bill actually serves those purposes in the context of their secondary system.)

- Some providers cannot obtain secondary meters that the manufacturer will warranty given the low quality of the water in their system, putting them in a position where they may have to pay to install meters that won't be guaranteed by the manufacturers.

The bill isn't clear on reading and reporting requirements related to the meters themselves. This lack of clarity raises questions about the value of implementation of SB-52.

Costs

1. The costs of meter installations extend beyond simply the initial installation costs. Ongoing staffing, replacement, reporting requirements, hardware and software will result in significant additional costs to the water suppliers, and these costs have a disproportionate effect on smaller providers and their customers.

2. Mandatory metering may result in systems delaying other water efficiency improvements (i.e. piping or lining canals, leak repairs, etc.) due to the financial burden of installing meters.

3. In areas where culinary source water is different than that for secondary water, there is some risk that the cost of metering secondary water could make the overall cost of that water equal to or greater than that of culinary water. That could encourage greater use of culinary water for outdoor use, which would be contrary to our culinary conservation plan. On the other hand, as culinary water is both metered and often subject to tiered pricing, strong disincentives exist for such a shift from secondary to culinary use.

4. Despite the high costs of secondary meters, in some areas full implementation and maintenance costs may still be less than the cost of large, new water development projects.

5. As mentioned, unit costs for meters and installation vary widely depending on the physical conditions of the area. For example, some services are located at the road in a public utility easement (PUE) while other connections are in backyards.

6. Cost per connection may be higher to implement a full metering system due to upfront costs for programs/hardware, staffing, etc., and those costs fall heavier on smaller systems.

Timing (Prioritization)

1. If not long enough (e.g., 15-30 years), the implementation period for retrofitting secondary systems with meters can create problems with competitive bidding, material availability, installation, and financing.

2. There may be an opportunity to prioritize secondary metering in areas where there is a greater conservation need. (More targeted efforts may deliver better results, particularly over the short-term.)

3. Some agencies have expressed interest in metering institutional users, parks, golf courses, and open space in HOAs before turning to the residential connections, which they view as lower priorities from a conservation standpoint. Others believe all secondary users should be metered as soon as reasonably possible.

Possible Exemptions

1. Any solution should take into account those areas of the state where manufacturers will not warranty their products due to water quality issues.

2. Some wholesale and retail agencies have contracts with each customer for fixed annual volumes which will need to be honored regardless of what volume is metered. While this reduces the incentive to install meters, it does not negate the value of providing end users with information about their own use and how their use compares with that of other, similarly situated users.

3. The benefits of secondary metering in terms of extending water supplies, foregoing new projects, or reducing environmental impacts, do not apply equally to all situations. Those justification may be compelling in some areas, but not in other areas, and it may not make sense to impose a one-size-fits-all solution in every context.

4. Currently everyone is subject to SB-52 reporting requirements, regardless of situation (e.g., resources available) and there are no resources available to assist with that or any consequence for failing to report. Some providers may not even be aware of the requirements.

5. Some entities believe that an exemption should be made for built out systems.

Financing

1. Loan monies offered by the State do not cover the full cost nor do they provide the needed financial help for most entities. The public can and will react negatively to large rate increases, particularly in the absence of concrete benefits. Some are concerned about the lack of grant money, particularly where the benefits derived from secondary metering are public benefits—in other words, they benefit the region or state as a whole and not the customers who have to shoulder the cost.

2. On the flip side, municipal water users who lack secondary systems or who have already upgraded their systems by installing meters do not want to have to bear the cost of metering for

those who have not. Those users tend to believe that users of unmetered secondary water have been enjoying an unfair windfall. That reality has undermined support for state grants rather than loan programs. Fundamental disagreements about loans, grants, or some combination remain a significant hurdle.

3. Longer loan payback periods and no (0%) interest rates are wanted by many entities.

4. Where a warrantied meter is not available, some entities will be excluded from current loan monies available from the state.

Other

1. It is widely accepted that an informed water customer is more responsible with their water use. Secondary water users will respond with less water use with meters and smart billing information. Although, some entities felt like smart billing should not be mandatory.

2. Some communities have a sufficient water supply for their long term needs without having to conserve more. The effect of metering might include a community conserving water at their expense for the future benefit of another community or the public as a whole.

3. The installation of meters on secondary water may not reduce water consumption unless an entity has the capability of sending usage statements and corresponding rates to the customers.

4. Some entities may delay the conversion of ditch irrigation systems to pressurized secondary systems in order to avoid having to bear the cost of meter installations.

5. Consideration should be given to technology improvements including the ability of secondary meters to communicate with installed smart timers and the cost of such innovations.

Status of Metering Plan Requirement

As part of Utah Code 73-10-34, secondary water providers providing secondary water to commercial, industrial, institutional, or other residential users are required to develop a plan for metering the use of pressurized secondary water. This plan is required to be submitted to the Utah Division of Water Resources by December 31, 2019 and address a proposed implementation plan for metering, the associated costs, time needed to complete the plan, and how the plan will be funded.

In July of 2019, the Division of Water Resources and Water Rights sent out over 1,100 packets and 500 emails informing irrigation companies and public water suppliers about Senate Bill 52 Secondary Water Requirements.

In addition to a letter describing all the requirements of Senate Bill 52, the packet and email also included, a "plan" form (a link to an electronic version was also provided), and funding information. In addition, to sending out letters and emails, this information has been available on the Divisions and Rural Water Users websites and discussed by the Divisions during conferences, certifications, and routine meetings with systems. As of November 19, 2019, the following information or plans have been received by the Division of Water Resources in response to this requirement:

Paper Forms

- 16 forms stating the company has no pressurized secondary
- 4 partially completed forms

Online

- 6 online forms have been submitted

Phone Calls

- Approximately 50-60 phone calls have been received and addressed.

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